AN 1995:795168 CAPLUS
DN 123:189355
TI Ovulation control by regulating nitric oxide levels
IN Garfield, Robert E.; Yallampalli, Chandrasekhar
PA Board of Regents, University of Texas System, USA
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-195
CC 2-3 (Mammalian Hormones)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9515753	A1	19950615	WO 1994-US14133	19941208
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5470847	A	19951128	US 1993-165309	19931210
	AU 9513041	A1	19950627	AU 1995-13041	19941208
	US 5643944	A	19970701	US 1995-477189	19950607
	US 5721278	A	19980224	US 1995-477187	19950607
PRAI	US 1993-165309		19931210		
	WO 1994-US14133		19941208		

AB Inhibition of ovulation in a female may be achieved by administering a nitric oxide synthase inhibitor, alone or in combination with one or more of a progestin, an estrogen, and an LH-RH antagonist, thereby preventing conception. The stimulation of ovulation in a female may be achieved by administering a nitric oxide source, optionally in further combination with one or more of clomiphene, a gonadotropin, and an LH-RH agonist. Thus, 27 days old immature rats were injected with 4 IU of pregnant mare's serum gonadotropin on day on. Two days later rats were injected with 40 mg of NG-nitro-L-arginine Me ester at 12 AM and 3 PM and animals were sacrificed one day later and examd. for the ovulatory response by counting the no. of Graafian follicles 3 and corpora lutea 5 in the ovaries. The no. of Graffian follicles and corpora lutea was 9.7 and 0.7 resp. as compared to 1.0 and 10.0 for the controls.

ST ovulation control nitric oxide synthase inhibition; conception prevention nitric oxide synthase inhibition

IT **Contraceptives**
Insemination, artificial
Ovarian cycle
Ovulation
Pituitary gland
(ovulation control by regulating nitric oxide levels)

IT Estrogens
Gonadotropins
Progestogens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ovulation control by regulating nitric oxide levels)

IT Fertilization
(extracorporeal, ovulation control by regulating nitric oxide levels)

IT Gonadotropins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors, ovulation control by regulating nitric oxide levels)

IT 9034-40-6, GnRH 103733-02-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BIOL (Biological study)
(antagonists; ovulation control by regulating nitric oxide levels)

IT 50-28-2, 17.beta.-Estradiol, biological studies 50-50-0, Estradiol benzoate 55-63-0, Nitroglycerin 57-63-6, Ethinyl estradiol 57-83-0, Progesterone, biological studies 68-23-5, Norethinodrel 74-79-3, L-Arginine, biological studies 87-33-2, Isosorbide dinitrate 434-22-0, 19-Nortestosterone 520-85-4, Medroxyprogesterone 911-45-5, Clomiphene 2149-70-4 6533-00-2, Norgestrel 9002-67-9, LH 9034-40-6D, Lh-rh, analogs 14402-89-2, Sodium nitroprusside 16051-77-7, Isosorbide mononitrate 17035-90-4 17230-88-5, Danazol 20933-81-7 34973-08-5, Gonadorelin acetate 35189-28-7, Norgestimate **50903-99-6** 54024-22-5, Desogestrel 57444-72-1 60282-87-3, Gestodene 74381-53-6, Leuprolide acetate 76932-60-0, Nafarelin acetate 125978-95-2, Nitric oxide synthase 137361-05-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ovulation control by regulating nitric oxide levels)

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L24 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2000 ACS
PY 1995
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AN 1995:753642 CAPLUS
DN 123:152914
TI Treatment of climacteric disorders with nitric oxide synthase substrates and/or donors
IN Yallampalli, Chandra; Garfield, Robert E.; Chwalisz, Kristof; Bukowski, Radoslaw
PA Schering A.-G., Germany
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-04
ICS A61K031-195
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9513800	A1	19950526	WO 1994-EP3818	19941117
	W: AU, BR, CA, CN, CZ, FI, HU, JP, KR, LT, LV, NO, NZ, PL, RU, SI, SK, UA				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5595970	A	19970121	US 1993-153345	19931116
	AU 9481446	A1	19950606	AU 1994-81446	19941117
	EP 730445	A1	19960911	EP 1995-900760	19941117
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	BR 9408062	A	19961124	BR 1994-8062	19941117
	JP 09505069	T2	19970520	JP 1994-514225	19941117
	NO 9601994	A	19960716	NO 1996-1994	19960515
	FI 9602110	A	19960715	FI 1996-2110	19960517
PRAI	US 1993-153345	19931116			
	US 1993-92426	19930716			
	WO 1994-EP3818	19941117			

AB The symptoms of the climacteric disorders are ameliorated by the administration to an afflicted individual 1 or both of a nitric oxide substrate and/or nitric oxide donor, alone or optionally in combination with a progestin or, in the case of non-pregnant female, either a progestin or an estrogen or both. To a nonpregnant female displaying the signs of menopausal or postmenopausal symptoms, including amenorrhea, hot flushes, etc., **L-arginine** (0.5-20 g-oral) is administered daily in 2 equally divided doses until the symptoms are improved. After the above treatment, 0.5-5 g **L-arginine** is administered daily.
ST climacteric disorder nitric oxide synthase donor; estrogen menopause nitric oxide synthase donor; hormone therapy nitric oxide synthase donor
IT Menopause
(treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

IT Estrogens
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

IT 10102-43-9, Nitric oxide, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

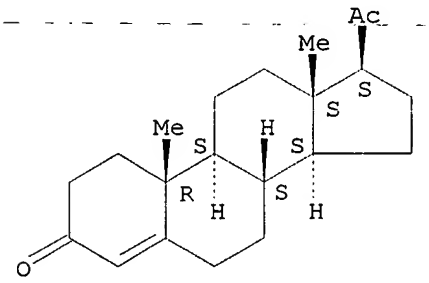
IT 125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(substrates; treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

IT 50-27-1, Estriol 50-28-2, 17.beta.-Estradiol, biological studies 53-16-7, Estrone, biological studies 55-63-0, Nitroglycerin **57-83-0**, Progestin, biological studies 68-22-4, Norethisterone **74-79-3**, **L-Arginine**, biological studies 87-33-2, Isosorbide dinitrate 152-62-5, Dydrogesterone 520-85-4, Medroxyprogesterone 797-63-7, Levonorgestrel **979-32-8**, **Estradiol valerate** 6533-00-2, Norgestrel 14402-89-2, Sodium nitroprusside 16051-77-7, Isosorbide mononitrate 33876-97-0, SIN-1 54024-22-5, Desogestrel 54048-10-1, 3-KetoDesogestrel 60282-87-3, Gestodene
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

IT **57-83-0**, Progestin, biological studies **74-79-3**, **L-Arginine**, biological studies **979-32-8**, **Estradiol valerate**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of climacteric disorders with nitric oxide synthase substrates and/or donors)

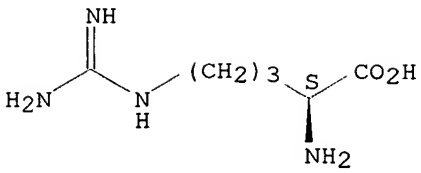
RN 57-83-0 CAPLUS
CN Pregn-4-ene-3,20-dione (9CI) (CA INDEX NAME)

Absolute stereochemistry.



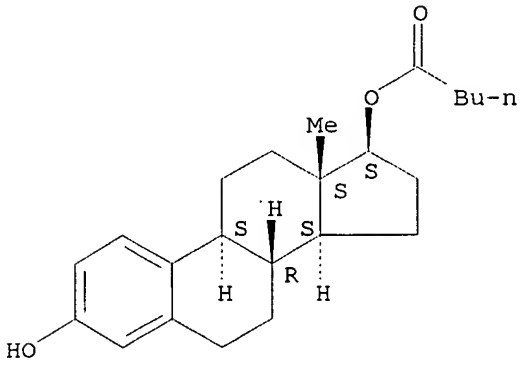
RN 74-79-3 CAPLUS
CN L-Arginine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 979-32-8 CAPLUS
CN Estra-1,3,5(10)-triene-3,17-diol (17.beta.)-, 17-pentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L24 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2000 ACS

PY 1997
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AN 1997:89052 CAPLUS

DN 126:139891

TI Treatment of climacteric disorders with nitric oxide synthase substrates and/or donors

IN Garfield, Robert E.; Chwalisz, Krzysztof; Bukowski, Radoslaw; Yallampalli, Chandra

PA Schering A.-G., Germany

SO U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 92,426, abandoned.
CODEN: USXXAM

DT Patent

LA English

IC ICM A61K031-04
ICS A61K031-56; A61K031-155

NCL 514012000

CC 1-10 (Pharmacology)
Section cross-reference(s): 2

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5595970	A	19970121	US 1993-153345	19931116
	US 5895783	A	19990420	US 1993-92426	19930716
	CA 2166873	AA	19950126	CA 1994-2166873	19940718
	CN 1127473	A	19960724	CN 1994-192793	19940718
	HU 73488	A2	19960828	HU 1995-3854	19940718
	CA 2176727	AA	19950526	CA 1994-2176727	19941117
	WO 9513800	A1	19950526	WO 1994-EP3818	19941117
	W: AU, BR, CA, CN, CZ, FI, HU, JP, KR, LT, LV, NO, NZ, PL, RU, SI, SK, UA				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9481446	A1	19950606	AU 1994-81446	19941117
	EP 730445	A1	19960911	EP 1995-900760	19941117
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CN 1135177	A	19961106	CN 1994-194167	19941117
	BR 9408062	A	19961124	BR 1994-8062	19941117
	HU 74459	A2	19961230	HU 1996-1301	19941117
	JP 09505069	T2	19970520	JP 1994-514225	19941117

	US 5958878	A	19990928	US 1995-466538	19950606
	US 5965529	A	19991012	US 1995-466688	19950606
	NO 9601994	A	19960716	NO 1996-1994	19960515
	FI 9602110	A	19960715	FI 1996-2110	19960517
	US 5948762	A	19990907	US 1997-896017	19970717
	US 5962413	A	19991005	US 1997-934739	19970922
	AU 9869818	A1	19980716	AU 1998-69818	19980529

PRAI US 1993-92426 19930716
US 1993-152496 19931116
US 1993-153345 19931116
WO 1994-EP3818 19941117
US 1995-466689 19950606

AB The symptoms of the climacterium are ameliorated by the administration to an afflicted individual with one or both of a nitric oxide substrate and/or nitric acid donor, alone or optionally in combination with a progestin or, in the case of a non-pregnant female, either a progestin or an estrogen or both.

ST climacterium nitric oxide synthase substrate hormone

IT Menopause
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

IT Estrogens
Progestins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

IT 125978-95-2, Nitric oxide synthase
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

IT 7697-37-2, Nitric acid, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

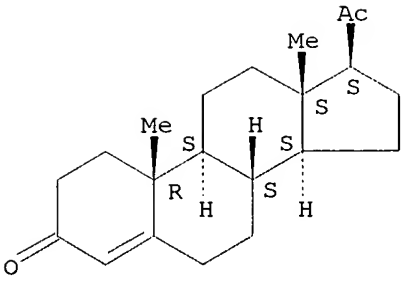
IT 50-27-1, Estriol 50-28-2, 17.beta.-Estradiol, biological studies
53-16-7, Estrone, biological studies 55-63-0, Nitroglycerin
57-83-0, Progesterone, biological studies 68-22-4,
Norethisterone **74-79-3**, **L-Arginine**,
biological studies 87-33-2, Isosorbide dinitrate 152-62-5,
Dydrogesterone 520-85-4, Medroxyprogesterone 797-63-7, Levonorgestrel
979-32-8, **Estradiol valerate** 6533-00-2,
Norgestrel 14402-89-2, Sodium nitroprusside 16051-77-7, Isosorbide mononitrate 33876-97-0, Sin-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

IT **57-83-0**, Progesterone, biological studies **74-79-3**,
L-Arginine, biological studies **979-32-8**,
Estradiol valerate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(climacteric disorders treatment with nitric oxide synthase substrates and/or donors and hormones)

RN 57-83-0 CAPLUS

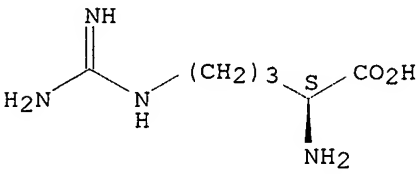
CN Pregn-4-ene-3,20-dione (9CI) (CA INDEX NAME)

Absolute stereochemistry.



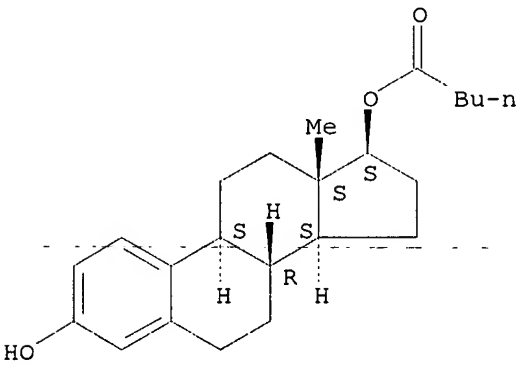
RN 74-79-3 CAPLUS
CN L-Arginine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 979-32-8 CAPLUS
CN Estra-1,3,5(10)-triene-3,17-diol (17.beta.)-, 17-pentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L24 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2000 ACS
PY 1997
1999
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AN 1997:640549 CAPLUS
DN 127:288184
TI Treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors
IN Yallampalli, Chandrasekhar; Wilamawansa, Sunil J.
PA Board of Regents, the University of Texas System, USA; Yallampalli, Chandrasekhar; Wilamawansa, Sunil J.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-66
ICS A61K031-595; A61K031-445
CC 1-10 (Pharmacology)
Section cross-reference(s): 2
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9734609	A1	19970925	WO 1997-US4311	19970318
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5898038	A	19990427	US 1996-616470	19960319
AU 9726579	A1	19971010	AU 1997-26579	19970318
EP 954319	A1	19991110	EP 1997-918484	19970318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI US 1996-616470 19960319
WO 1997-US4311 19970318

AB Primary and secondary osteoporosis in a female or a male mammal in any age treated by administering thereto a nitric oxide synthase substrate, a nitric oxide donor or both, optionally; in further combination with one or more of an estrogen, a progestin, a bisphosphonate, an anabolic steroid, testosterone, a flavinoid, vitamin D analog or a calcitonin. Nitric oxide substrate or donor also can be combined with one or more of the other medication acting on bone, such as bisphosphonate, calcitonin, fluoride, androgen, vitamin D analog, and other novel therapeutic agents. Either nitric oxide donor or substrate by itself or in combination with other medications as described above can be used in both males and females, for prevention and treatment of osteopenia or osteoporosis, and other metabolic bone disorders.
ST osteoporosis nitric oxide substrate; bone disorder nitric oxide donor
IT Bone diseases
Oral drug delivery systems
Osteoporosis
Parenteral solutions (drug delivery systems)
Sprays (drug delivery systems)

(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

IT Anabolic steroids
Androgens
Antiestrogens
Bone morphogenetic proteins
Estrogens
Flavonoids
Growth factors (animal)
Progestins
Transforming growth factors .beta.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

IT 125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

IT **74-79-3**, **L-Arginine**, biological studies
RL: BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

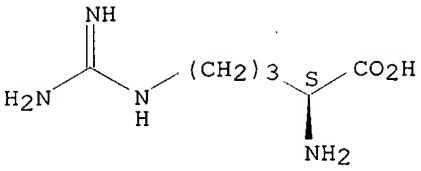
IT 10102-43-9, Nitric oxide, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

IT 50-27-1, Estriol 50-28-2, 17.beta.-Estradiol, biological studies
53-16-7, Estrone, biological studies 55-63-0, Nitroglycerin
57-83-0, Progesterone, biological studies 58-22-0, Testosterone
68-22-4, Norethisterone 87-33-2, Isosorbide dinitrate 152-62-5,
Dydrogesterone 360-70-3, Nandrolone decanoate 520-85-4,
Medroxyprogesterone 797-63-7, Levonorgestrel **979-32-8**,
Estradiol valerate 1406-16-2D, Vitamin D, metabolites
6533-00-2, Norgestrel 7414-83-7, Disodium etidronate 7440-70-2D,
Calcium, compds. 7681-49-4, Sodium fluoride, biological studies
9007-12-9, Calcitonin 10596-23-3 13598-36-2D, Phosphonic acid,
alkylidenebis-, derivs. 14402-89-2, Sodium nitroprusside 16051-77-7,
Isosorbide mononitrate 16984-48-8, Fluoride, biological studies
33876-97-0, SIN-1 40391-99-9 61912-98-9, Insulin-like growth factor
66376-36-1, Alendronate 105462-24-6, Residronate 106602-62-4, Amylin
114084-78-5, Ibandronate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

IT **74-79-3**, **L-Arginine**, biological studies
RL: BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)

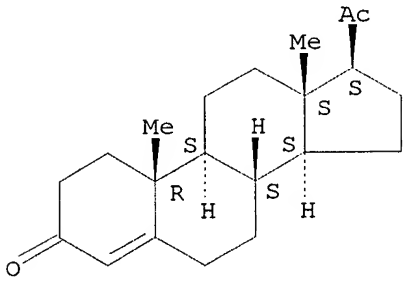
RN 74-79-3 CAPLUS
CN L-Arginine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



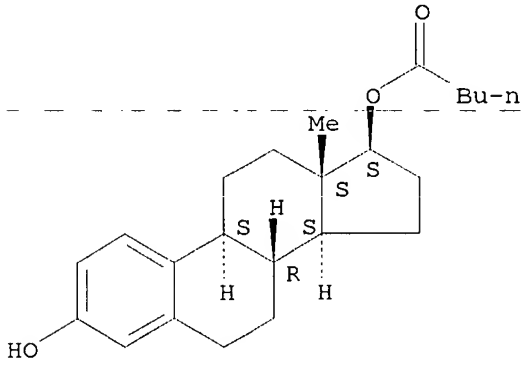
IT **57-83-0**, Progesterone, biological studies **979-32-8**, **Estradiol valerate**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of osteoporosis and metabolic bone disorders with nitric oxide substrate and/or donors)
RN 57-83-0 CAPLUS
CN Pregn-4-ene-3,20-dione (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 979-32-8 CAPLUS
CN Estra-1,3,5(10)-triene-3,17-diol (17.beta.)-, 17-pentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L24 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2000 ACS
PY 1997
1997
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AN 1997:745947 CAPLUS
DN 128:19047
TI Improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor
IN Chwalsz, Krzysztof; Garfield, Robert E.
PA Schering Aktiengesellschaft, Germany
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-565
ICS A61K031-57; A61K031-22; A61K031-195; A61K031-34; A61K031-44
CC 2-3 (Mammalian Hormones)
Section cross-reference(s): 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9741866	A1	19971113	WO 1997-EP2371	19970507
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9728947	A1	19971126	AU 1997-28947	19970507
	EP 906105	A1	19990407	EP 1997-923032	19970507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1218402	A	19990602	CN 1997-194452	19970507
	BR 9708980	A	19990803	BR 1997-8980	19970507
	NO 9805204	A	19990106	NO 1998-5204	19981106
PRAI	US 1996-646518	19960507			
	WO 1997-EP2371	19970507			

AB A method is provided for the improvement of implantation rates and/or pregnancy rates in a female mammal, comprising administering to a female mammal in whom pregnancy is desired an effective amt. of: (a) a nitric oxide synthase substrate, a nitric oxide donor, or both, optionally in combination with, (b) a progestin, and, (c) optionally, in further combination with an estrogen. A method is also provided for fertility control for a female mammal, comprising administering to a female mammal in whom pregnancy is not desired and at risk of becoming pregnant an effective amt. of nitric oxide synthase inhibitor in combination with an antiprogestin. Pharmaceutical compns. are also provided.
ST implantation in vitro fertilization nitric oxide; contraceptive nitric oxide synthase inhibitor antiprogestin
IT Female fertility
Fertility disorders
(female fertility disorders; improvement of implantation rates after in

vitro fertilization by administering a nitric oxide substrate and/or donor)

IT Contraceptives
(fertility control using a nitric oxide synthase inhibitor in combination with an antiprogestin)

IT Antiprogestins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fertility control using a nitric oxide synthase inhibitor in combination with an antiprogestin)

IT Embryo (animal)
In vitro fertilization (animal)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor)

IT Estrogens
Progestins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor and optionally a progestin and estrogen)

IT Abortion (spontaneous)
(prevention of early pregnancy loss by administering a nitric oxide substrate and/or donor)

IT Pregnancy
(rate; improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor)

IT 79-17-4, Aminoguanidine 504-29-0, 2-Aminopyridine 1121-58-0, 4-Methylaminopyridine 5407-87-4, 4,6-Dimethyl-2-aminopyridine 17035-90-4 36889-13-1 52450-18-7, AMT 53774-63-3 80471-63-2, Epostane 84371-65-3, Mifepristone 118968-41-5, ORG 31710 126784-99-4, CDB2914 155768-17-5, ORG 33628 198907-45-8, ZK 137316 199396-76-4, J 867
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fertility control using a nitric oxide synthase inhibitor in combination with an antiprogestin)

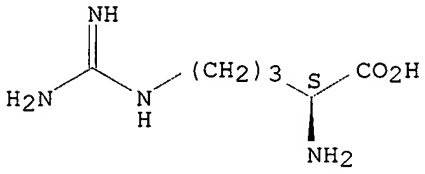
IT 55-63-0, Nitroglycerin **74-79-3, L-Arginine**, biological studies 87-33-2, Isosorbide dinitrate 10102-43-9D, Nitric oxide, substrates and donors 14402-89-2, Sodium nitroprusside 16051-77-7, Isosorbide mononitrate 33876-97-0, SIN-1 125978-95-2D, Nitric oxide synthase, substrates and inhibitors
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor)

IT 50-28-2, Estradiol, biological studies **57-83-0**, Progesterone, biological studies 630-56-8, Hydroxyprogesterone caproate **979-32-8, Estradiol valerate** 96346-61-1, Onapristone
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor and optionally a progestin and estrogen)

IT **74-79-3, L-Arginine**, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor)

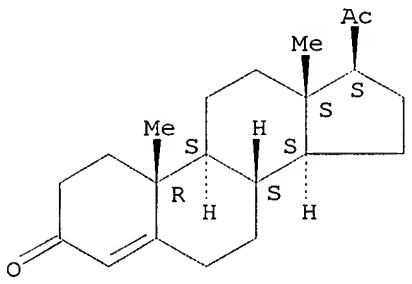
RN 74-79-3 CAPLUS
CN L-Arginine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



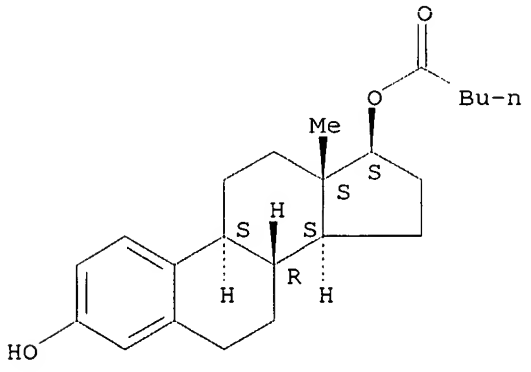
IT **57-83-0**, Progesterone, biological studies **979-32-8**, **Estradiol valerate**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improvement of implantation rates after in vitro fertilization by administering a nitric oxide substrate and/or donor and optionally a progestin and estrogen)
RN 57-83-0 CAPLUS
CN Pregn-4-ene-3,20-dione (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 979-32-8 CAPLUS
CN Estra-1,3,5(10)-triene-3,17-diol (17.beta.)-, 17-pentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

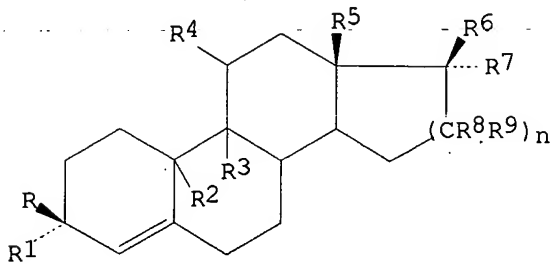


AN 1984:530975 CAPLUS
DN 101:130975
TI Steroid derivatives
IN Teutsch, Jean G.; Costerousse, Germain; Philibert, Daniel; Deraedt, Roger
PA Roussel-UCLAF , Fr.
SO U.S., 33 pp. Cont.-in-part of U.S. 4,386,085.
CODEN: USXXAM
DT Patent
LA English
IC A01N045-00; A61K031-56
NCL 424238000
CC 32-5 (Steroids)
Section cross-reference(s): 1, 2
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4447424	A	19840508	US 1982-386967	19820610
	FR 2497807	A1	19820716	FR 1981-272	19810109
	FR 2497807	B1	19830729		
	US 4386085	A	19830531	US 1982-338077	19820108
	US 4519946	A	19850528	US 1984-614440	19840525
	US 4634695	A	19870106	US 1985-693682	19850122
	US 4978657	A	19901218	US 1985-810316	19851217
	US 5043332	A	19910827	US 1989-421526	19891013

PRAI FR 1981-272 19810109
US 1982-338077 19820108
US 1982-386967 19820610
FR 1982-10205 19820611
FR 1982-70205 19820611
US 1983-501373 19830606
US 1984-595267 19840330
US 1984-614440 19840525
US 1985-693682 19850122
US 1985-760703 19850730
US 1985-810316 19851217

GI



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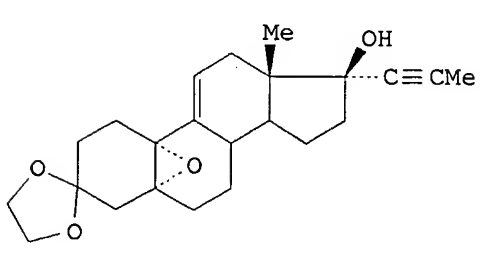

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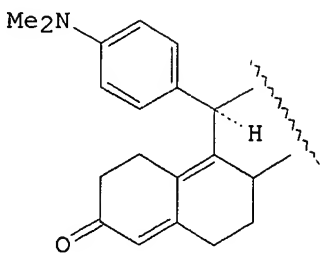

III

AB Antiglucocorticoid and **contraceptive** norsteroids I [RR1 = O, ketal, HON:, CH2:; R = HO, alkoxy, acyloxy, R1 = H; R2R3 = O, bond; R4 = N-, P- or Si-contg. radical, i.e. pyridyl, dimethylaminoalkyl, 4-(Me2NCH2CH2O)C6H4, pyrrolidinophenyl, etc.; R5 = C1-C8 alkyl; R6, R7 = H, HO, alkoxy, acyloxy, HOCH2CO, HO2CCO, alkylcarbamoyl, etc.; R8, R9 = HO, H, alkyl aralkyl; n = 1, 2; optional 16-unsatd.] were prepd. by ring cleavage of epoxyestrene derivs. by Grignard reagents. Thus, treatment of epoxypropynylestrene II with 4-(Me2N)C6H4MgBr in THF contg. CuBr-Me2S complex and subsequent acid hydrolysis gave (aminophenyl)propynylestradien e III. At 10 mg/kg/day for 3 days in female rats III inhibited implantation 100g, whereas at 500 .mu.g/animal in the rabbit III was devoid of progestomimetic activity.

ST aminophenylestradienone prepn **contraceptive**; estradienone aminophenyl prepn **contraceptive**; epoxyestrenol ring cleavage Grignard reagent; antiglucocorticoide estradienone

IT Abortion
(by nitrogen-contg. radical substituted estradienones)

IT Androgens
Progestogens
RL: USES (Uses)
(inhibitors, nitrogen-contg. radical substituted estradienones)

IT **Contraceptives**
(nitrogen-contg. radical substituted estradienones)

IT 19-Norsteroids
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, of nitrogen-contg. radical substituted estradienones)

IT 106-95-6, reactions 109-54-6 586-77-6 626-61-9 1066-54-2 2052-06-4 2474-07-9 6274-57-3 6999-03-7 16518-62-0 22090-26-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(Grignard ring cleavage reaction of, with epoxyestrenol deriv.)

IT 91935-18-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(Grignard ring cleavage reaction of, with epoxyetrenol deriv.)

IT 78-80-8 463-49-0 536-74-3 591-51-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(addn. reaction of, with (aminophenyl)estrenone deriv.)

IT 74-99-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(addn. reaction of, with estradienone deriv.)

IT 5571-36-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(addn. reaction of, with propyne)

IT 100-61-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of, by isoamyl bromide)

IT 91-66-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)

IT 79-01-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dechlorination and addn. reaction with (aminophenyl)estrenone deriv.)

IT 91934-73-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(epimerization of)

IT 33403-21-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxide ring cleavage of, with aminophenylmagnesium bromide deriv.)

IT 90944-65-3P 91935-10-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Grignard ring cleavage reaction of, with epoxyestrenol deriv.)

IT 91934-77-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and addn. reaction of, with phenyllithium)

IT **84371-65-3P** 91934-81-5P 91934-84-8P 91934-85-9P
91934-86-0P 91934-89-3P 91935-00-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiglucocorticoid and **contraceptive** activities of)

IT 91934-93-9P 91934-98-4P 91984-11-1P 92009-03-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiglucocorticoid and **contraceptive** activity of)

IT 91935-09-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and bromination of)

IT 39931-87-8P 91934-74-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and epoxide ring cleavage of, by Grignard reagents)

IT 84371-57-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and epoxide ring cleavage reactions of, with Grignard reagents)

IT 84371-69-7P 92009-02-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and epoxidn. of)

IT 91935-04-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrogenation of)

IT 84371-60-8P 84371-62-0P 84371-64-2P 89359-46-6P 91934-71-3P
91934-75-7P 91934-78-0P 91934-80-4P 91934-83-7P 91934-88-2P
91934-90-6P 91934-91-7P 91934-95-1P 91934-96-2P 91934-99-5P
91935-01-2P 91935-03-4P 91935-05-6P 91935-07-8P 91935-11-4P
91935-13-6P 91935-15-8P 91935-19-2P 93790-79-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

IT 91934-94-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with lithium acetylide complex)

IT 84371-58-4P 84371-59-5P 84371-61-9P 84371-63-1P 84371-67-5P
84395-11-9P 89328-06-3P 91934-72-4P 91934-76-8P 91934-79-1P
91934-82-6P 91934-87-1P 91934-92-8P 91934-97-3P 91935-02-3P
91935-06-7P 91935-08-9P 91935-12-5P 91935-14-7P 91935-16-9P
91935-17-0P 91935-20-5P 91935-21-6P 91935-22-7P 91935-23-8P
91935-24-9P 91935-25-0P 91935-26-1P 91935-27-2P 91935-28-3P
91935-29-4P 91935-30-7P 91935-31-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 39990-99-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanoestrenol deriv.)

IT 4584-46-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reaction of, with bromothiophenol)

IT 106-53-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reaction of, with dimethylaminoethyl chloride)

IT 107-82-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reaction of, with methylaniline)

=>

AN 1994:289794 CAPLUS
DN 120:289794
TI Effects of nitric oxide-related agents on rat testicular function
AU Adams, Michael L.; Meyer, Edward R.; Sewing, Bryan N.; Cicero, Theodore J.
CS Sch. Med., Washington Univ., St. Louis, MO, USA
SO Journal of Pharmacology and Experimental Therapeutics (1994), 269(1), 230-7
CODEN: JPETAB; ISSN: 0022-3565
DT Journal
LA English
CC 1-8 (Pharmacology)
Section cross-reference(s): 2
AB The effects of nitric oxide (NO)-related agents on testicular function were examd. in male rats with measurements of serum LH, serum testosterone, testicular interstitial fluid (TIF) testosterone, and TIF vols. Serum and TIF testosterone levels and LH secretion were significantly decreased by the NO donor, isosorbide dinitrate (ISDN), and the NO synthase (NOS) substrate, L-arginine Me ester, a source for the endogenous prodn. of NO. The effects of ISDN on TIF vols. were inconsistent, but L-arginine Me ester decreased TIF formation in a dose-dependent manner. In addn., ISDN dose-dependently suppressed testosterone secretion stimulated by human chorionic gonadotropin treatment, suggesting that the effects on testosterone secretion were independent of changes in secretion of the endogenous gonadotropin LH. ISDN, L-arginine Me ester, and the endogenous NOS substrate L-arginine completely blocked testosterone secretion stimulated by the NOS inhibitor NG-nitro-L-arginine Me ester (NAME), whereas the relatively inactive NOS substrate, D-arginine, only partially blocked NAME-stimulated testosterone secretion. Hydralazine and nicardipine, two vasodilators that do not exhibit prominent NO-related effects, also blocked basal testosterone secretion and testosterone secretion stimulated by the vasoconstrictor NAME. These results suggest that (1) NO suppresses a major regulatory aspect of testicular function, testosterone secretion, (2) the stimulatory effects of the NOS inhibitor NAME on testosterone secretion are caused by NOS inhibition and a decrease in NO prodn., (3) the vasoactive effects of NO and NOS inhibitors, rather than direct steroidogenic effects, may mediate these effects on testicular function, and (4) arginine-NOS-NO pathways may play an important role in male reproductive endocrine function and **fertility**.
ST nitric oxide related agent testicular function
IT Testis
(function, nitric oxide-related agents effect on)
IT Vasodilators
(nitric oxide-related agents as, testicular function response to)
IT 10102-43-9, Nitric oxide, biological studies
RL: BIOL (Biological study)
(agents effect on, testicular function response to)
IT 125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor, testicular function response to, nitric oxide role in)
IT 58-22-0, Testosterone 9002-67-9, LH
RL: BIOL (Biological study)
(secretion, nitric oxide-related agents effect on)
IT 74-79-3, L-Arginine, biological studies 87-33-2, Isosorbide dinitrate 157-06-2, D-Arginine 2577-94-8, L-Arginine methyl ester **50903-99-6**
RL: BIOL (Biological study)
(testicular function response to, nitric oxide role in)

=>

AN 1998:309186 CAPLUS
DN 129:79672
TI Chronic nitric oxide synthesis inhibition does not prevent pregnancy vasodilation in the rat
AU Ahokas, Robert A., Ph. D.; Lubarsky, Suzanne L., M. D.; Park, Gun-Chae, M. D.; Friedman, Steven A., M. D.; Sibai, Baha M., M. D.
CS Department of Obstetrics and Gynecology, University of Tennessee, Memphis, TN, USA
SO Hypertension in Pregnancy (1998), 17(1), 55-68
CODEN: HYPPEV; ISSN: 1064-1955
PB Marcel Dekker, Inc.
DT Journal
LA English
CC 13-6 (Mammalian Biochemistry)
Section cross-reference(s): 1
AB The objective is to det. if blockade of endothelium-derived nitric oxide synthesis from the day after embryo **implantation** to the day before parturition prevents maternal systemic vasodilation in the rat. Timed-pregnant and age-matched nonpregnant Wistar-Kyoto rats were administered the nonselective **nitric oxide synthase** inhibitor N.omega.-nitro-L-arginine Me ester (15 mg/rat/day, s.c.) or saline vehicle (untreated) for 14 days using osmotic minipumps. On the last day of treatment (day 20 of gestation in the pregnant rats), plasma total nitrate/nitrite concn., mean arterial blood pressure, and heart rate were measured. Cardiac output and organ blood flows were then measured using radioactive-labeled microspheres for the calcn. of total systemic and organ/tissue vascular conductances, resp. Chronic blockade of nitric oxide synthesis decreased plasma nitrate/nitrite concn. >90% and induced hypertension with decreased cardiac output and organ blood flows in both nonpregnant and pregnant rats. Cardiac output and total vascular conductance were significantly increased in the pregnant compared to nonpregnant, untreated normotensive rats and in nitric-oxide-blocked hypertensive rats. Vascular conductance of the skin, skeletal muscle/skeleton, gastrointestinal tract, heart, and uterus were significantly greater in pregnant than in nonpregnant rats of both treatment groups. Conclusions: Maternal systemic and uterine vasodilation during pregnancy is complex and is caused by some mechanism(s) other than increased basal endothelium-derived nitric oxide prodn. or by a compensatory increase in some other vasodilatory system during nitric oxide synthesis blockade.
ST nitric oxide inhibition pregnancy vasodilation relationship
IT Blood pressure
Circulation
Pregnancy
Vasodilation
(pregnancy vasodilation independent of chronic nitric oxide synthesis inhibition)
IT **50903-99-6**, N.omega.-Nitro-L-arginine methyl ester
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(pregnancy vasodilation independent of chronic nitric oxide synthesis inhibition)
IT 125978-95-2, **Nitric oxide synthase**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(pregnancy vasodilation independent of chronic nitric oxide synthesis inhibition)
IT 10102-43-9, Nitric oxide, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(pregnancy vasodilation independent of chronic nitric oxide synthesis inhibition)
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

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